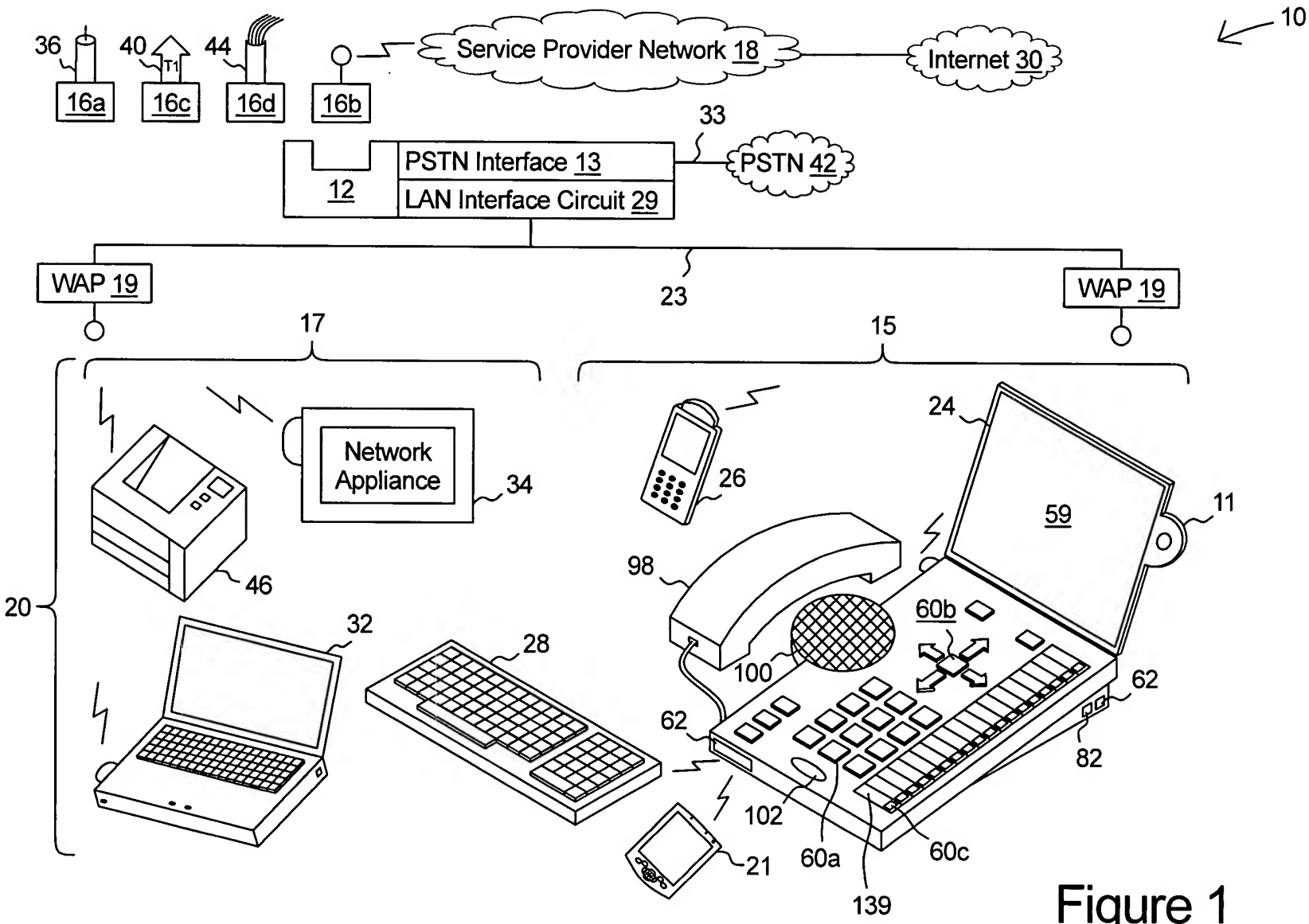
10
36
40
T1
44
16a
16c
16d
16b
Service Provider Network 18
Internet 30
33
PSTN Interface 13
LAN Interface Circuit 29
12
PSTN 42
WAP 19
WAP 19
23
17
15
Network Appliance
34
46
20
32
28
24
26
59
11
98
60b
100
62
62
82
102
60a
60c
21
139

Figure 1

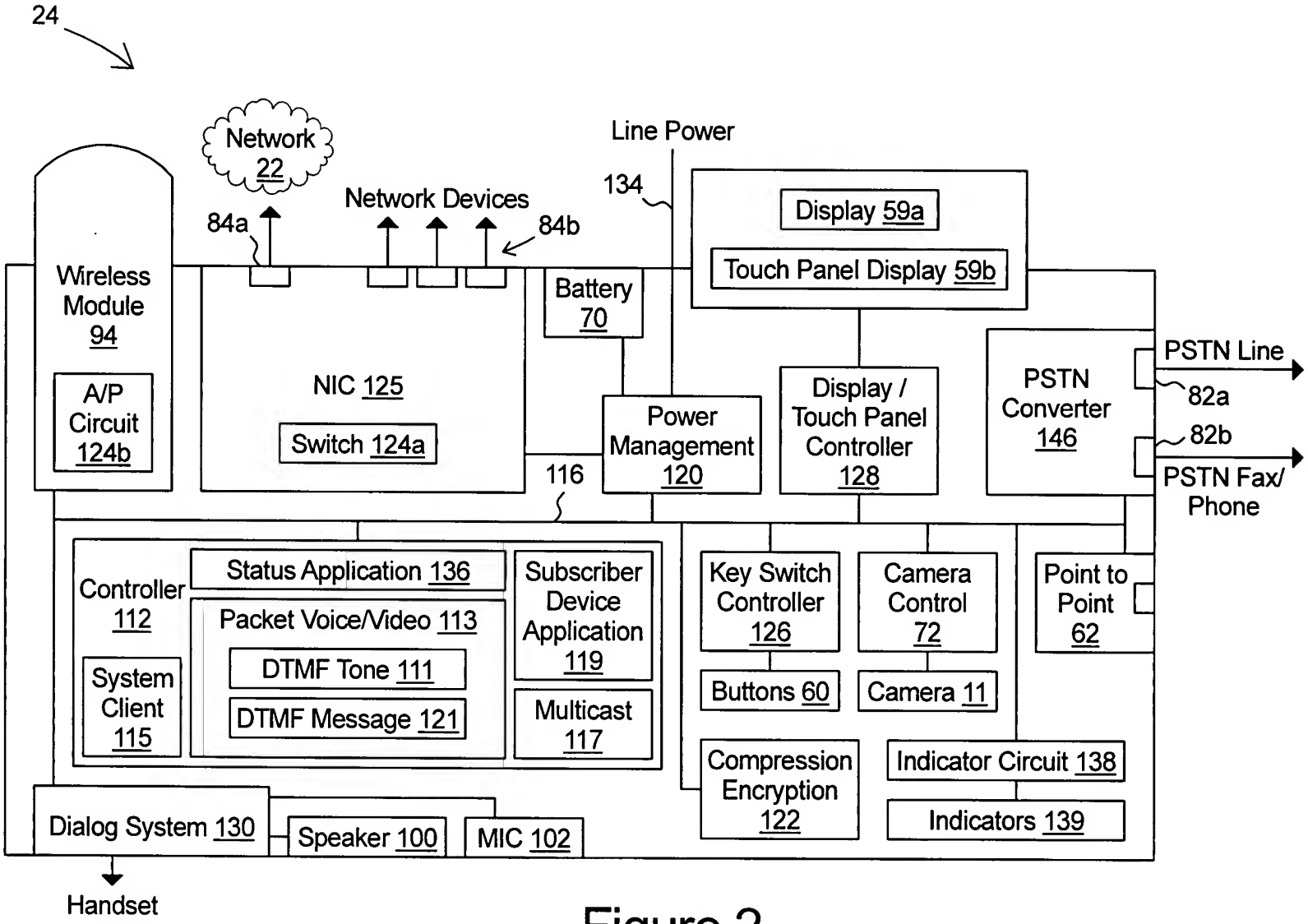
24
Network
22
Network Devices
84a
84b
Line Power
134
Display 59a
Touch Panel Display 59b
Wireless Module 94
A/P Circuit 124b
NIC 125
Switch 124a
Battery 70
Power Management 120
Display / Touch Panel Controller 128
PSTN Converter 146
PSTN Line
82a
82b
PSTN Fax/ Phone
116
Controller 112
Status Application 136
Packet Voice/Video 113
DTMF Tone 111
DTMF Message 121
System Client 115
Subscriber Device Application 119
Multicast 117
Key Switch Controller 126
Buttons 60
Camera Control 72
Camera 11
Point to Point 62
Compression Encryption 122
Indicator Circuit 138
Indicators 139
Dialog System 130
Speaker 100
MIC 102
Handset

Figure 2

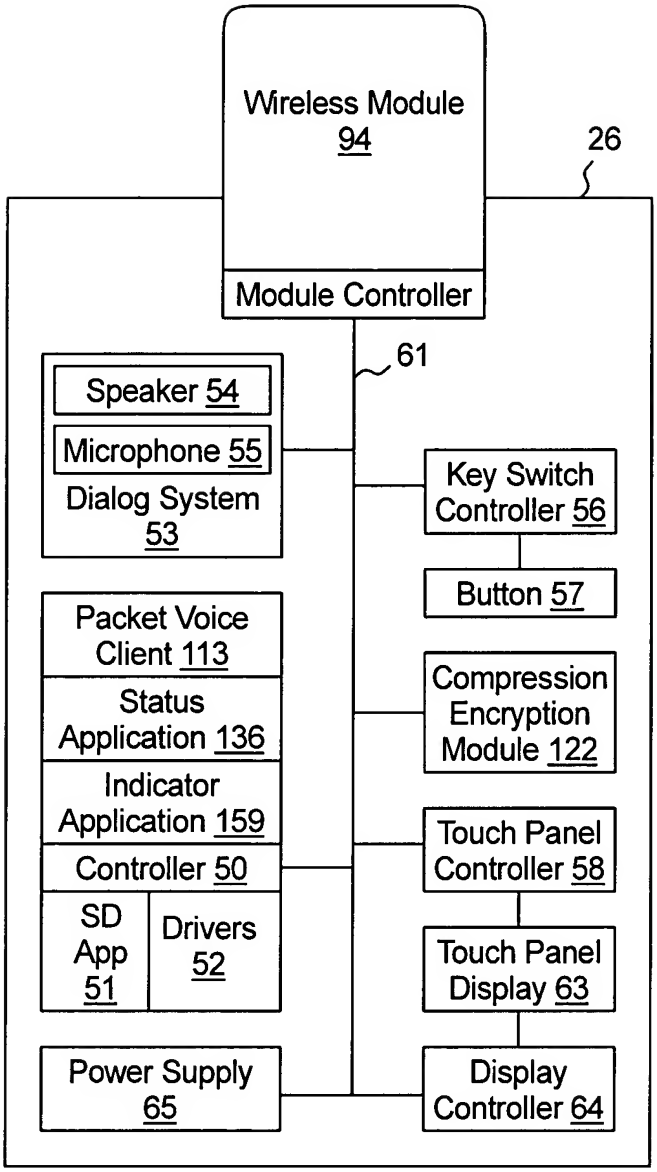
Wireless Module
94
26
Module Controller
61
Speaker 54
Microphone 55
Dialog System
53
Packet Voice
Client 113
Status
Application 136
Indicator
Application 159
Controller 50
SD
App
51
Drivers
52
Power Supply
65
Key Switch
Controller 56
Button 57
Compression
Encryption
Module 122
Touch Panel
Controller 58
Touch Panel
Display 63
Display
Controller 64

Figure 3

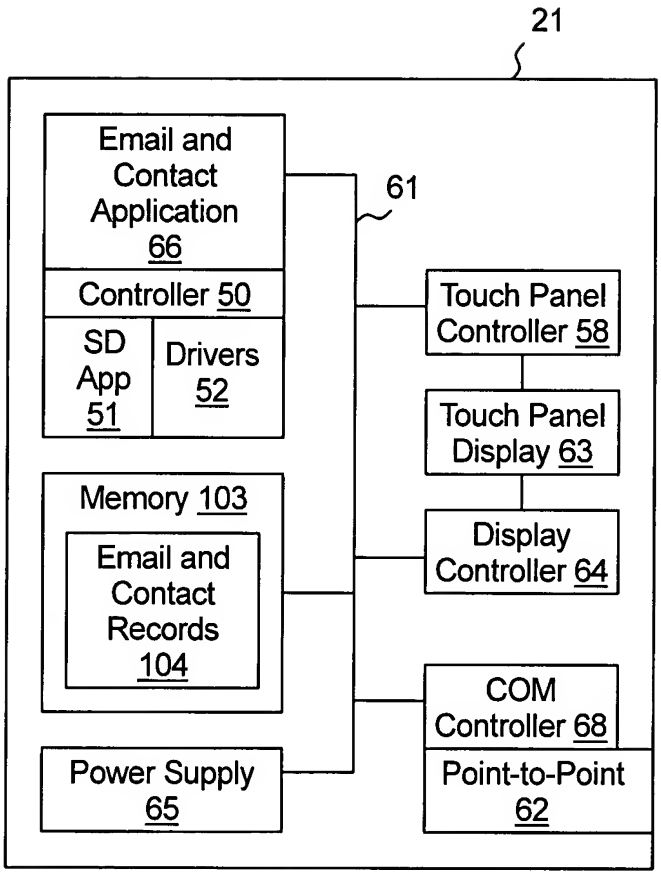
21
Email and Contact Application 66
61
Controller 50
SD App 51
Drivers 52
Memory 103
Email and Contact Records 104
Power Supply 65
Touch Panel Controller 58
Touch Panel Display 63
Display Controller 64
COM Controller 68
Point-to-Point 62

Figure 4

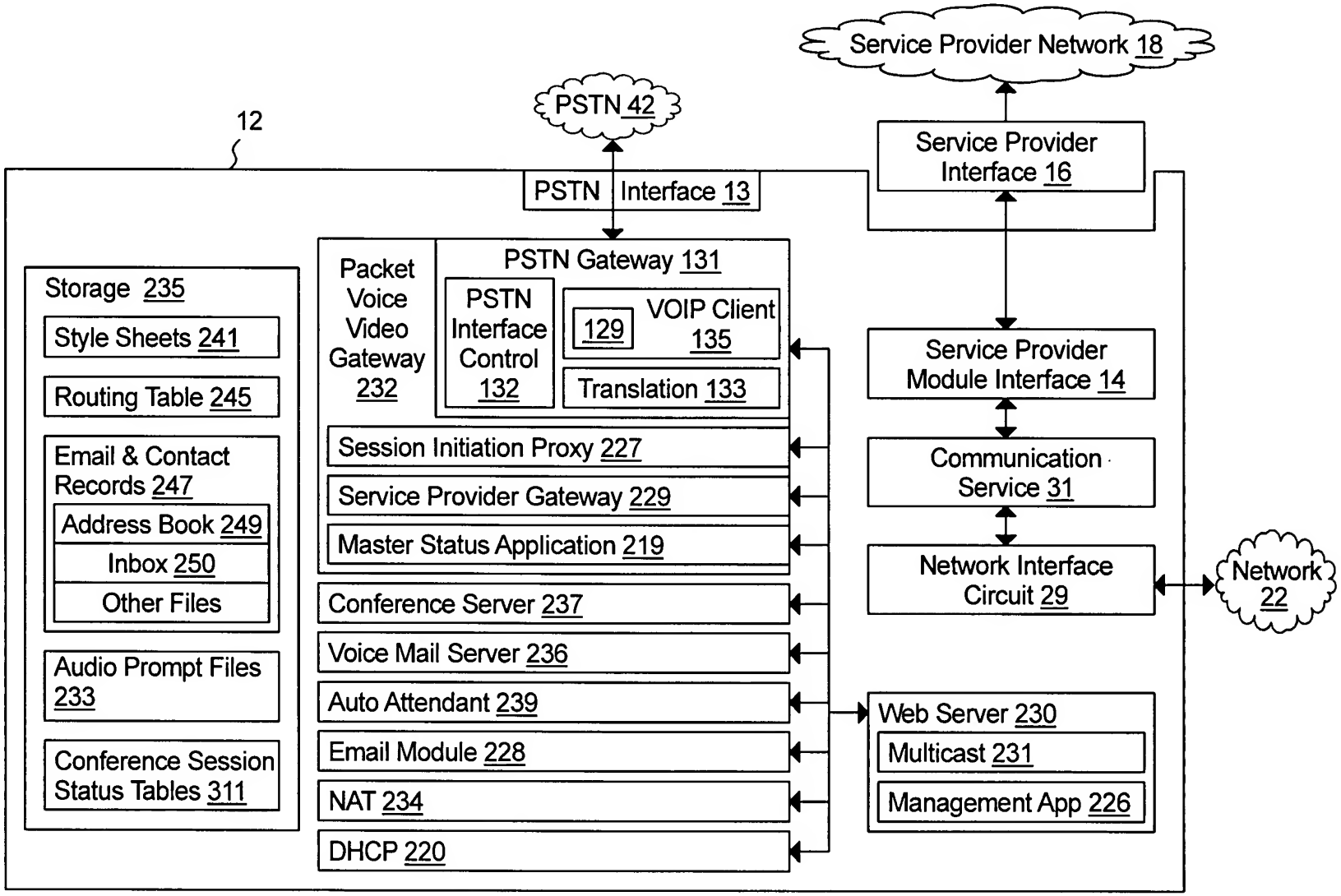
Service Provider Network 18
PSTN 42
12
Service Provider Interface 16
PSTN Interface 13
Storage 235
Style Sheets 241
Routing Table 245
Email & Contact Records 247
Address Book 249
Inbox 250
Other Files
Audio Prompt Files 233
Conference Session Status Tables 311
Packet Voice Video Gateway 232
PSTN Gateway 131
PSTN Interface Control 132
129
VOIP Client 135
Translation 133
Session Initiation Proxy 227
Service Provider Gateway 229
Master Status Application 219
Conference Server 237
Voice Mail Server 236
Auto Attendant 239
Email Module 228
NAT 234
DHCP 220
Service Provider Module Interface 14
Communication Service 31
Network Interface Circuit 29
Network 22
Web Server 230
Multicast 231
Management App 226

Figure 5

245

Identifier 246		Routing Address 254		Reference Identifier 248
Identifier	Name / URL	IP Address 254a	Port # 254b	
1001	Outside Line 1	192.168.001.001		—
1002	Outside Line 2	192.168.001.002		—
1003	Outside Line 3	192.168.001.003		—
1004	Bob			1006
1005	Marvin			Voice Mail
1006	Bob's Subscriber Device			Voice Mail
1007				
1008				
1009				

Figure 6

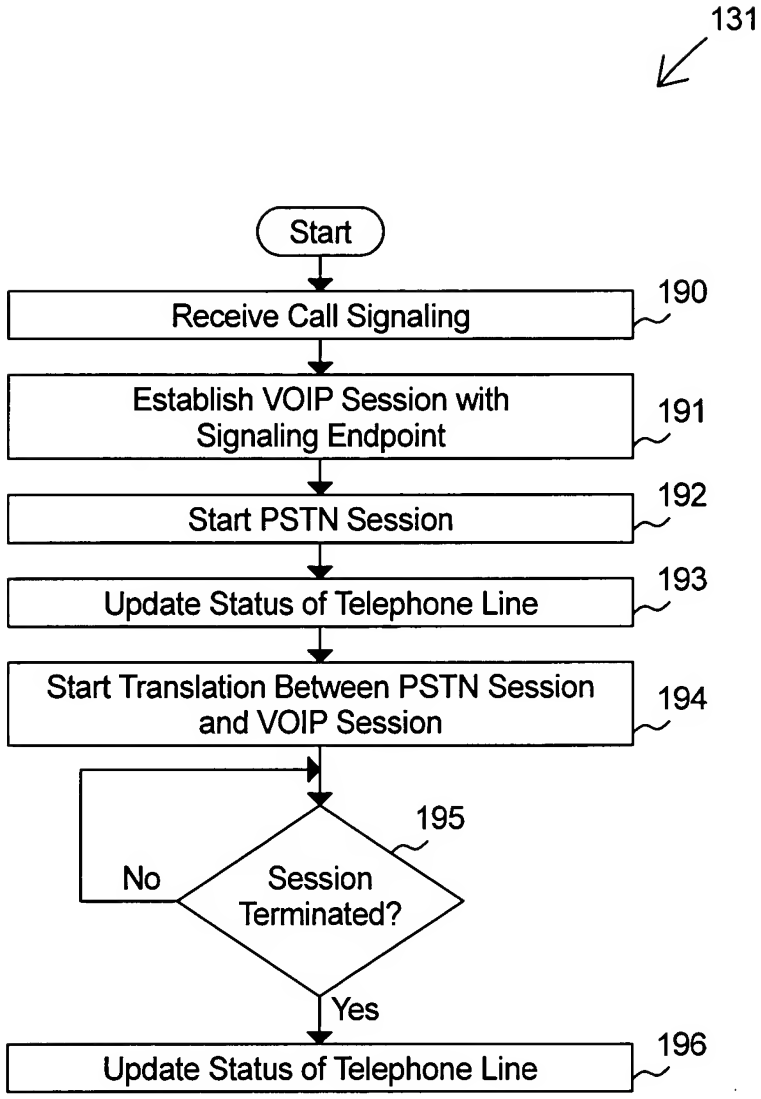
131
Start
Receive Call Signaling
190
Establish VOIP Session with Signaling Endpoint
191
Start PSTN Session
192
Update Status of Telephone Line
193
Start Translation Between PSTN Session and VOIP Session
194
195
No
Session Terminated?
Yes
Update Status of Telephone Line
196

Figure 7

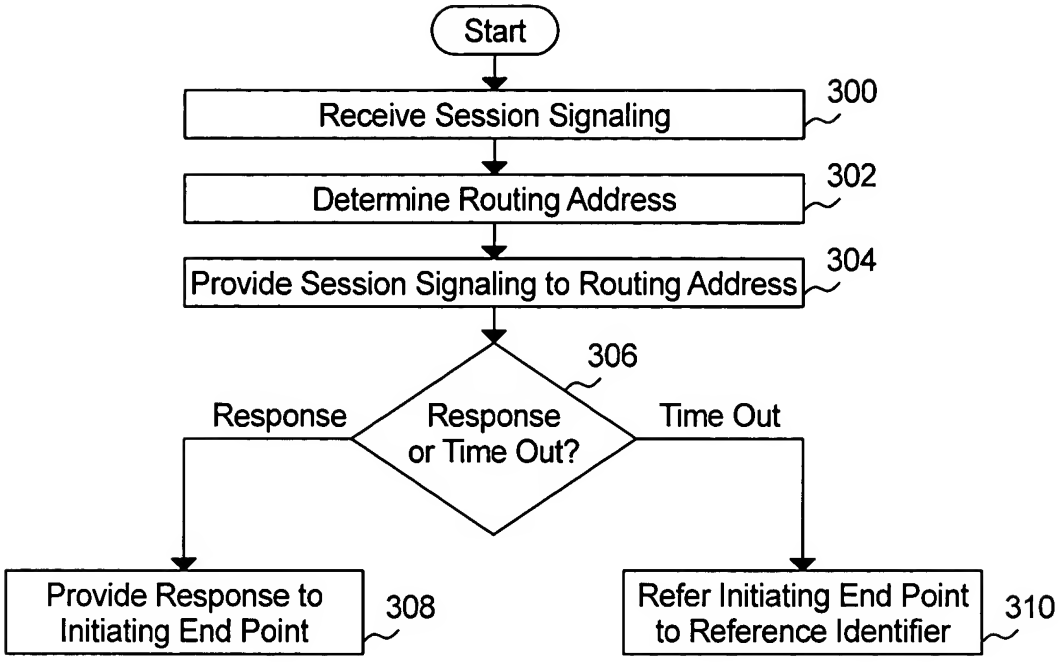

Figure 8

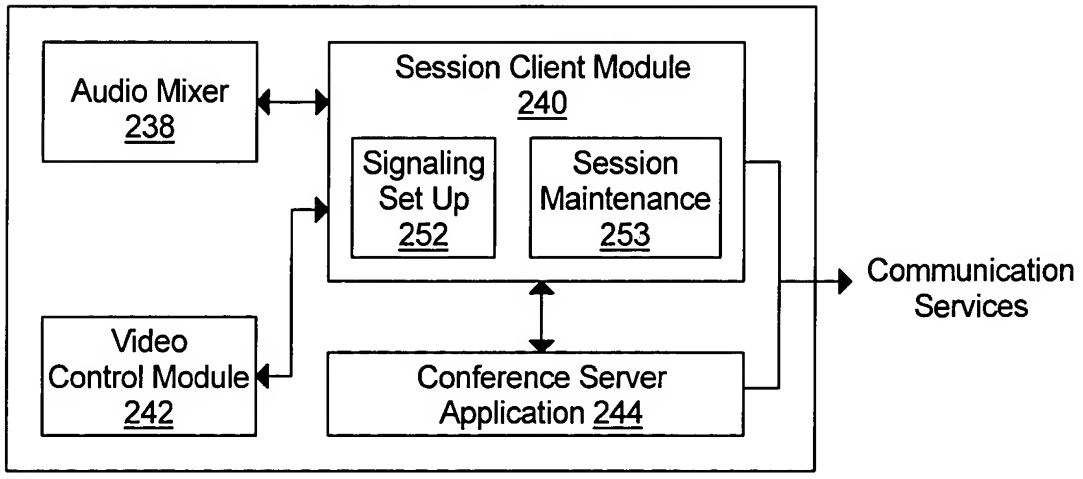

Figure 9

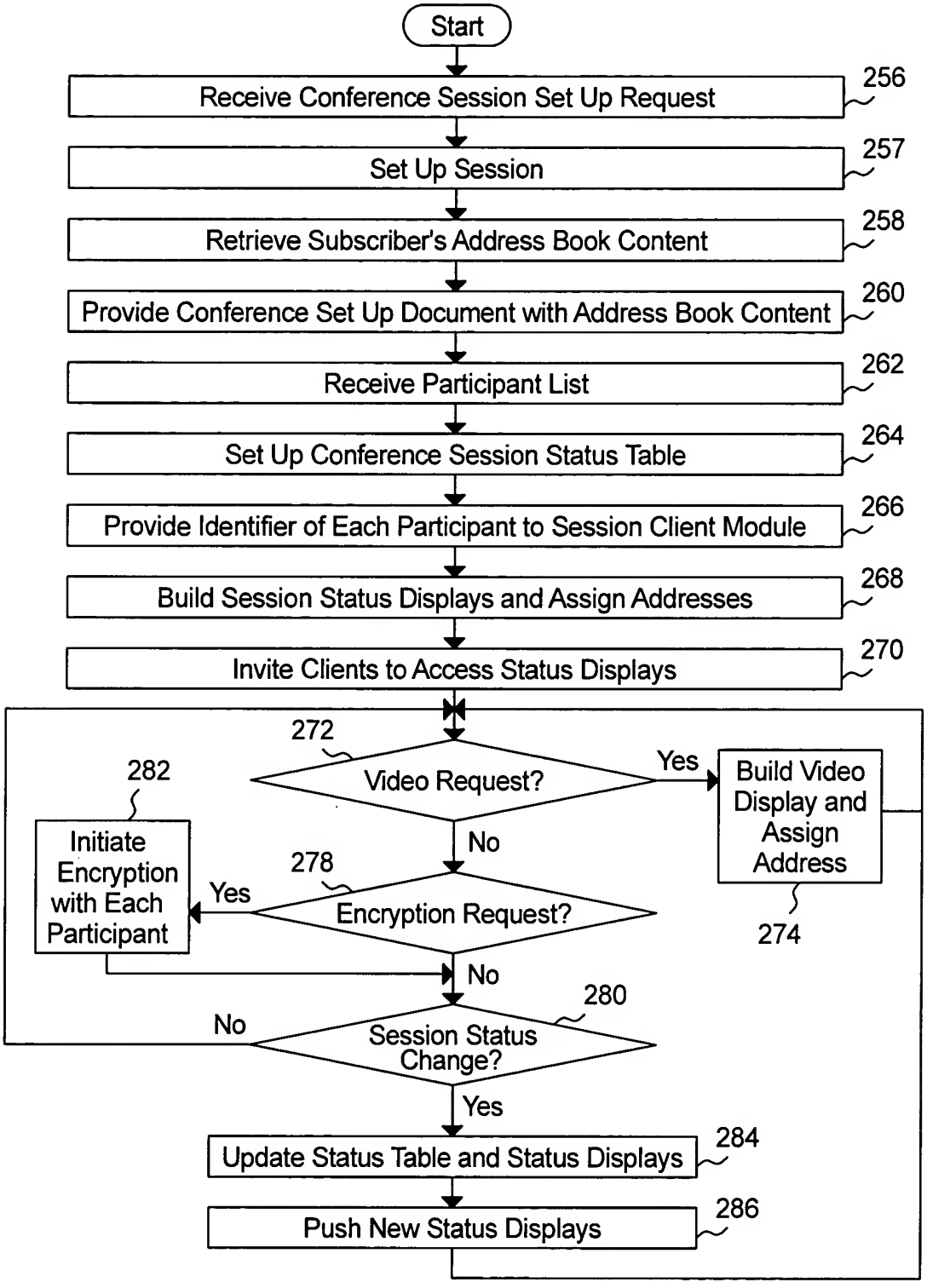
Start
Receive Conference Session Set Up Request
256
Set Up Session
257
Retrieve Subscriber's Address Book Content
258
Provide Conference Set Up Document with Address Book Content
260
Receive Participant List
262
Set Up Conference Session Status Table
264
Provide Identifier of Each Participant to Session Client Module
266
Build Session Status Displays and Assign Addresses
268
Invite Clients to Access Status Displays
270
272
Video Request?
Yes
Build Video Display and Assign Address
274
No
278
Encryption Request?
Yes
282
Initiate Encryption with Each Participant
No
280
Session Status Change?
No
Yes
Update Status Table and Status Displays
284
Push New Status Displays
286

Figure 10

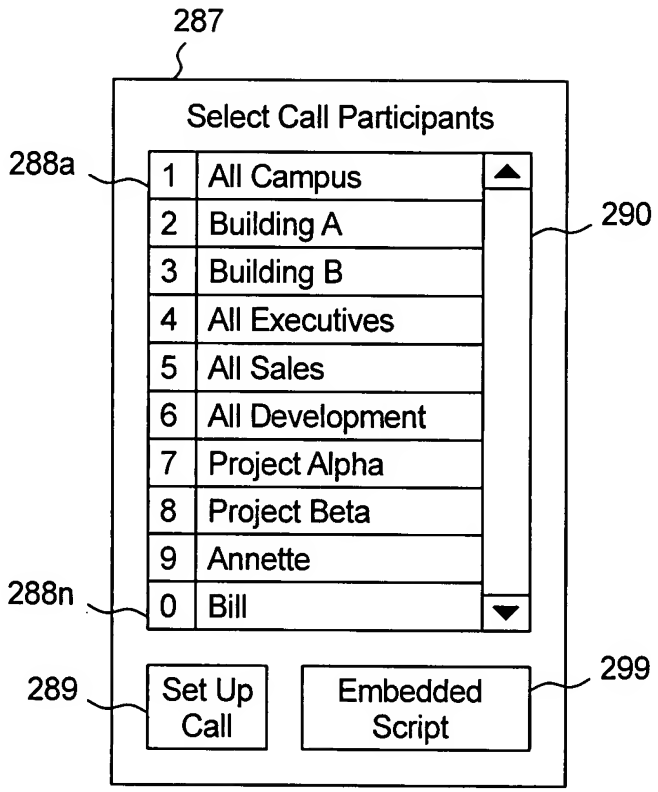

Figure 11a

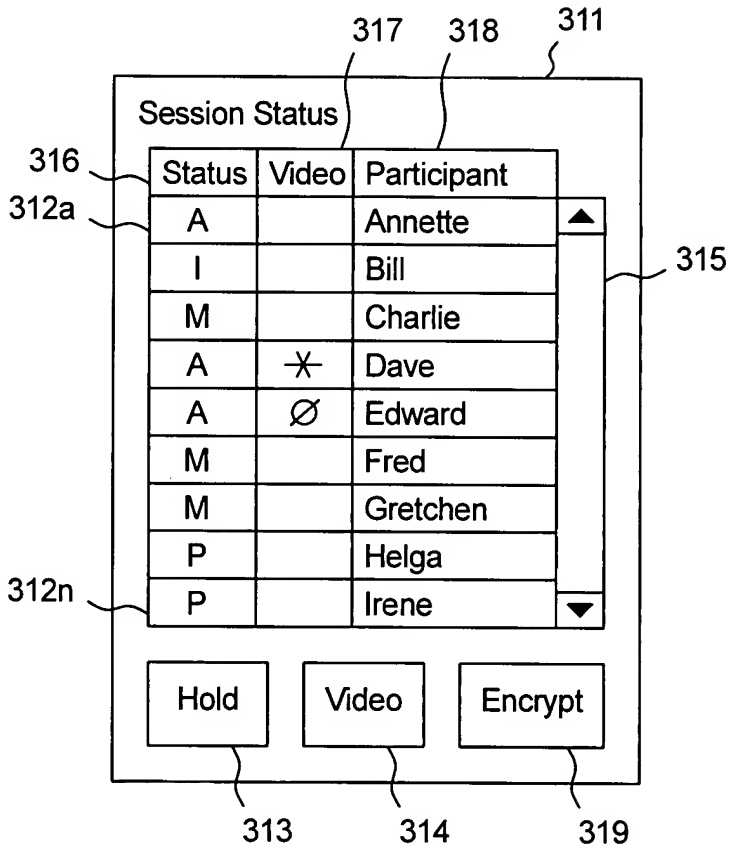

Figure 11b

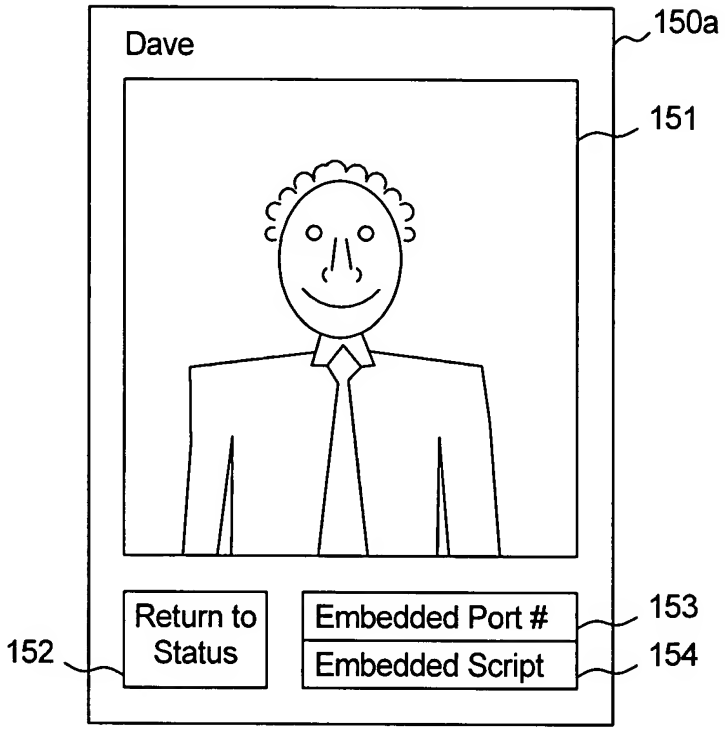

Figure 12a

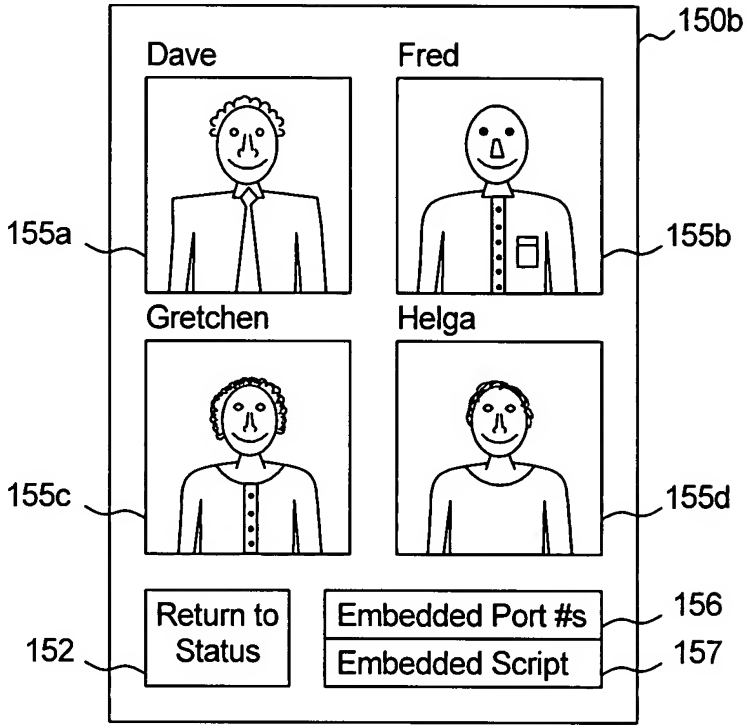

Figure 12b

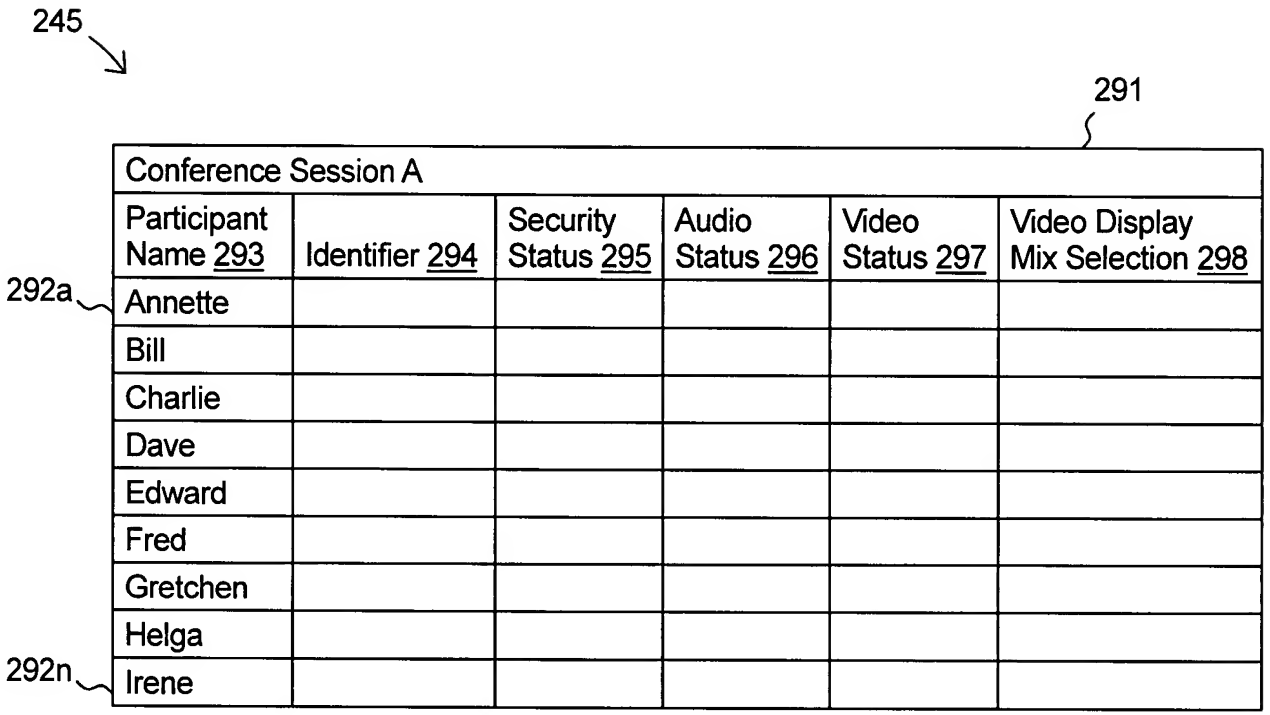
245
291
Conference Session A
Participant Name 293
Identifier 294
Security Status 295
Audio Status 296
Video Status 297
Video Display Mix Selection 298
292a
Annette
Bill
Charlie
Dave
Edward
Fred
Gretchen
Helga
292n
Irene

Figure 13

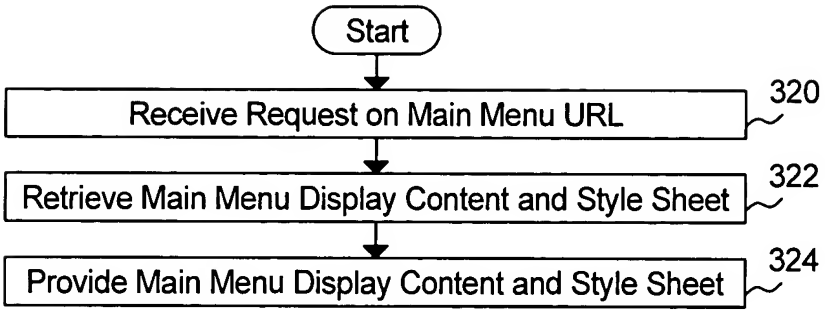

Figure 14a

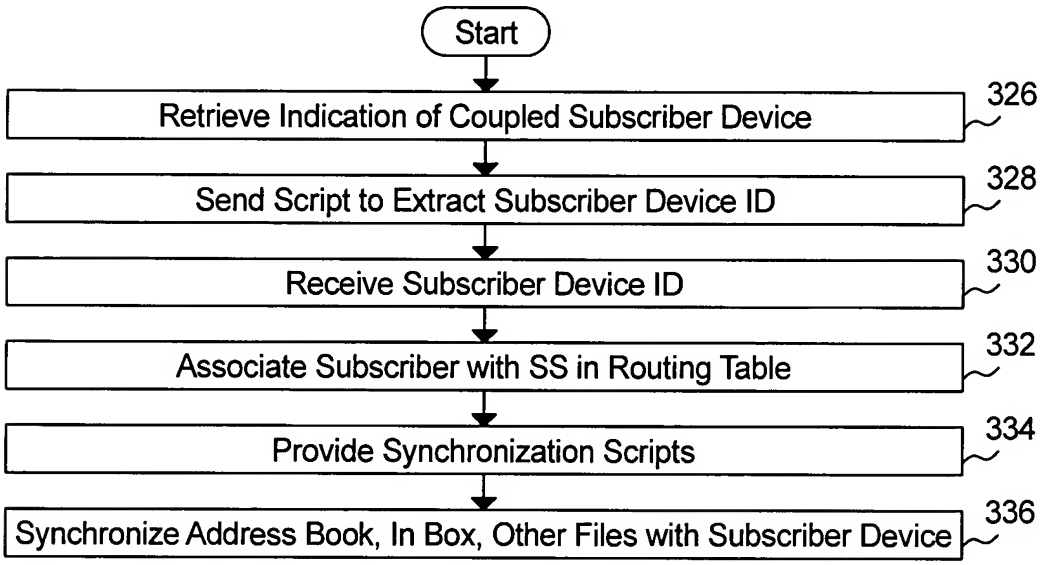

Figure 14b

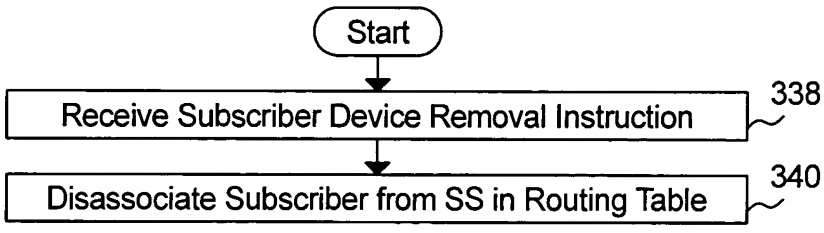

Figure 14c

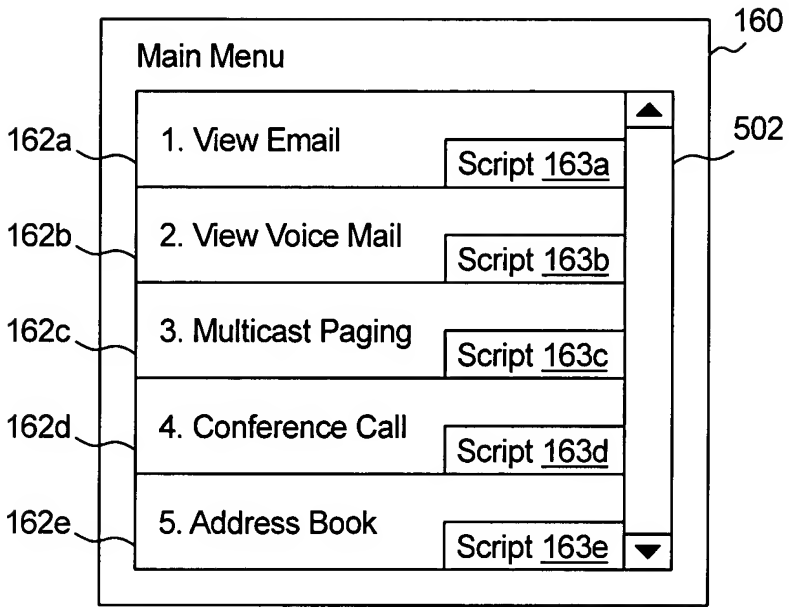
160
Main Menu
162a
1. View Email
Script 163a
502
162b
2. View Voice Mail
Script 163b
162c
3. Multicast Paging
Script 163c
162d
4. Conference Call
Script 163d
162e
5. Address Book
Script 163e

Figure 15

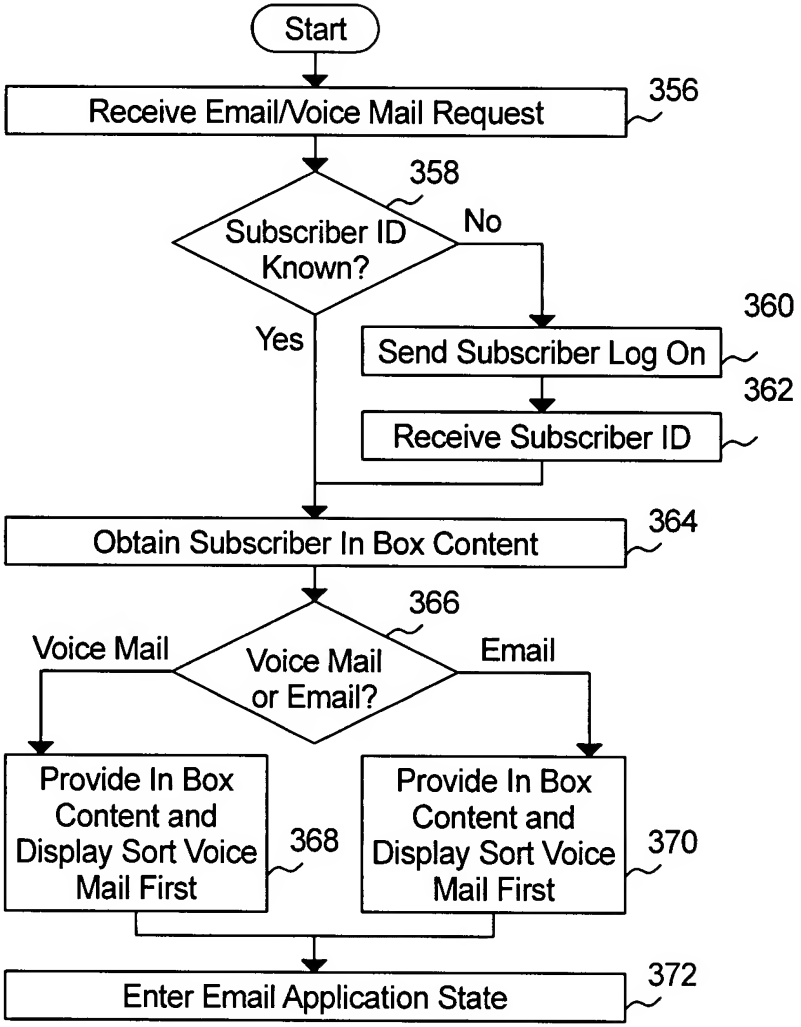

Figure 16a

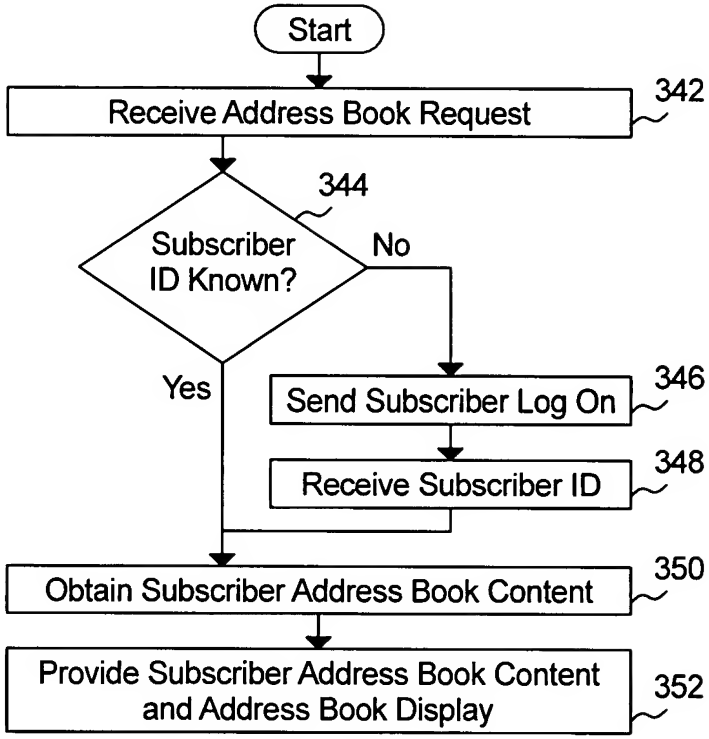

Figure 16b

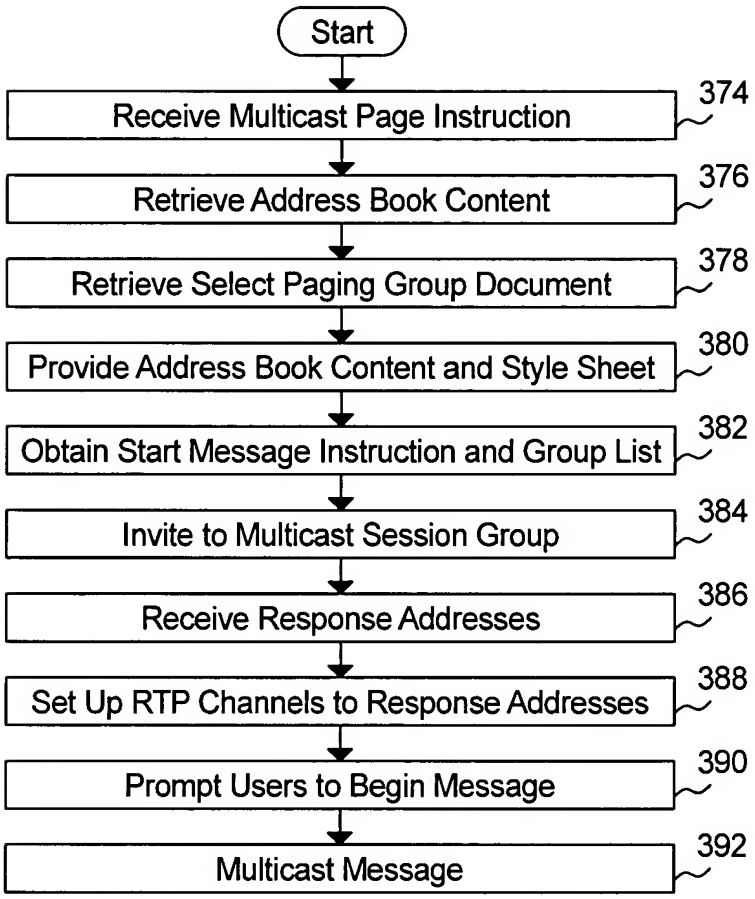
Start
Receive Multicast Page Instruction
374
Retrieve Address Book Content
376
Retrieve Select Paging Group Document
378
Provide Address Book Content and Style Sheet
380
Obtain Start Message Instruction and Group List
382
Invite to Multicast Session Group
384
Receive Response Addresses
386
Set Up RTP Channels to Response Addresses
388
Prompt Users to Begin Message
390
Multicast Message
392

Figure 17

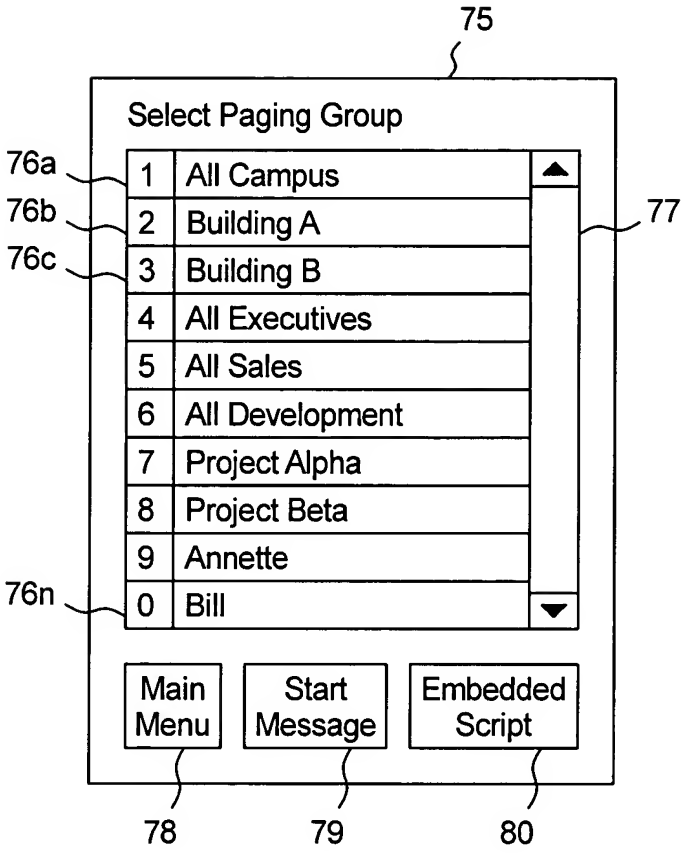
75
Select Paging Group
76a
76b
76c
76n
1 All Campus
2 Building A
3 Building B
4 All Executives
5 All Sales
6 All Development
7 Project Alpha
8 Project Beta
9 Annette
0 Bill
77
Main Menu
Start Message
Embedded Script
78
79
80

Figure 18

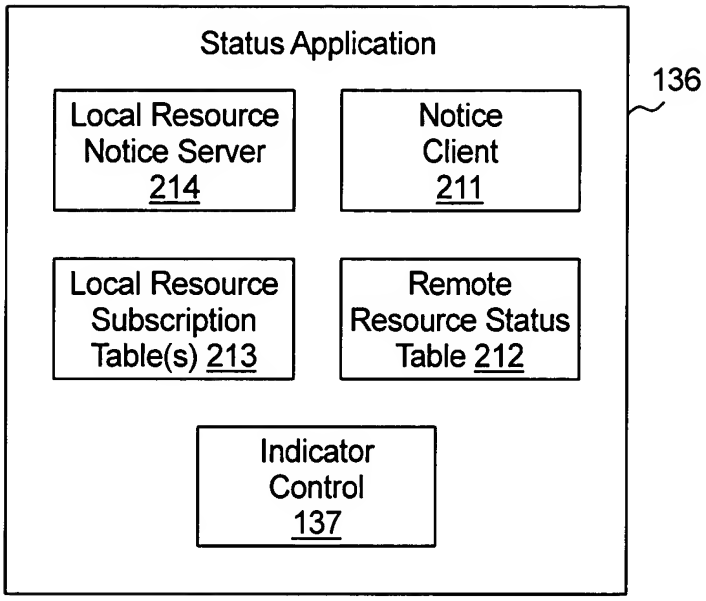

Figure 19a

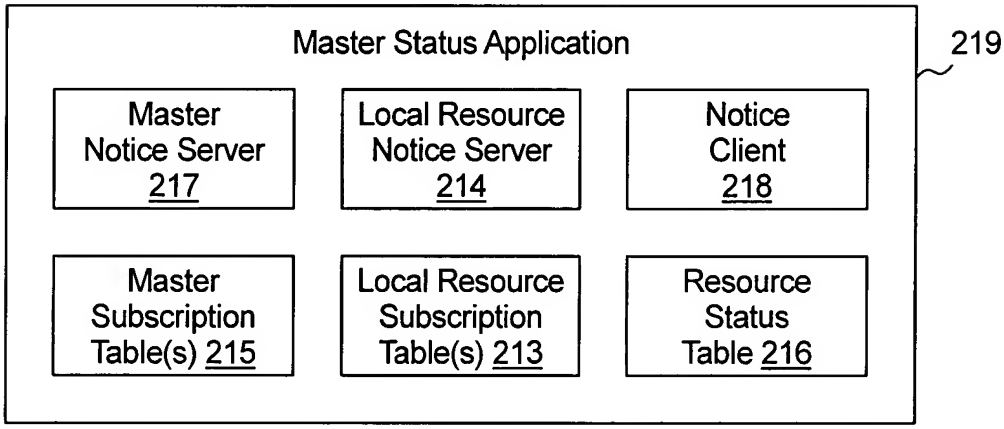

Figure 19b

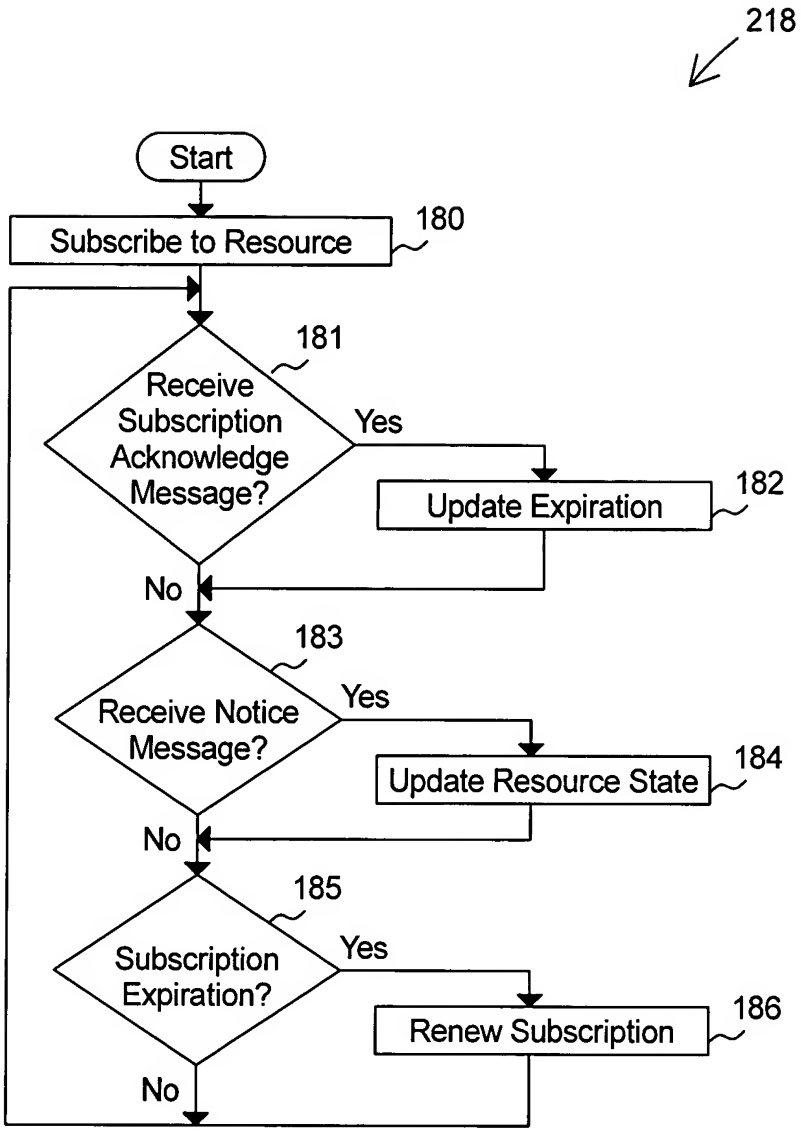
218
Start
Subscribe to Resource
180
181
Receive Subscription Acknowledge Message?
Yes
Update Expiration
182
No
183
Receive Notice Message?
Yes
Update Resource State
184
No
185
Subscription Expiration?
Yes
Renew Subscription
186
No

Figure 20

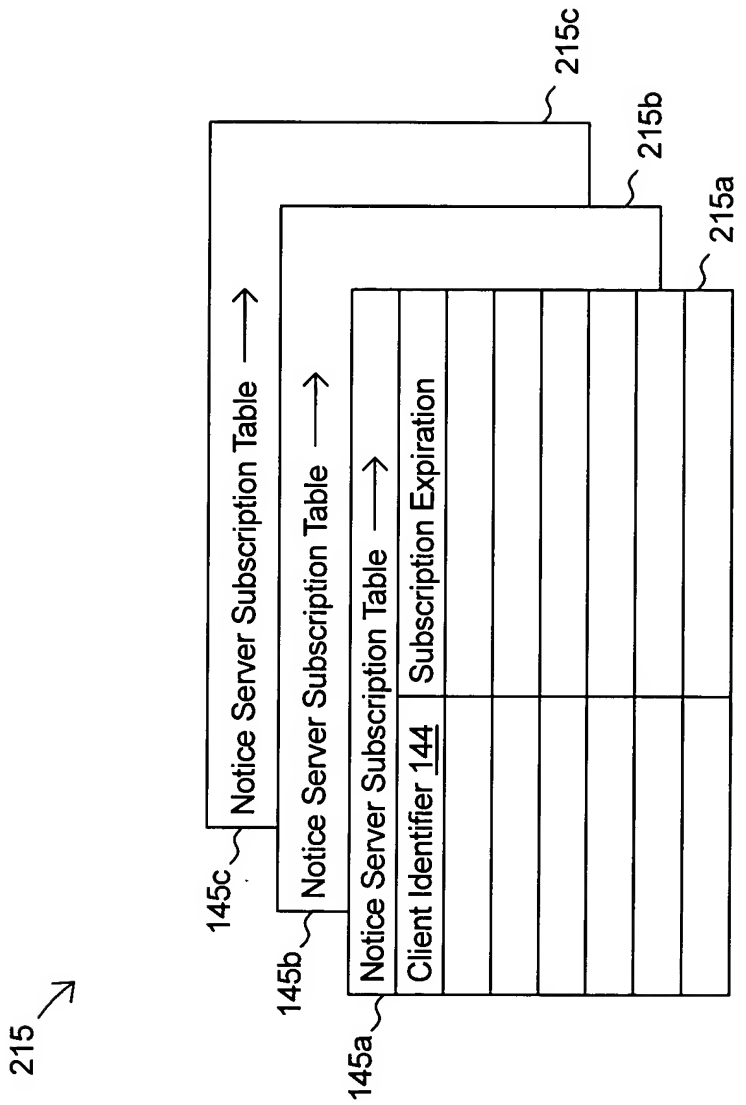
215
145c
145b
145a
Notice Server Subscription Table
Notice Server Subscription Table
Notice Server Subscription Table
Client Identifier 144
Subscription Expiration
215c
215b
215a

Figure 21

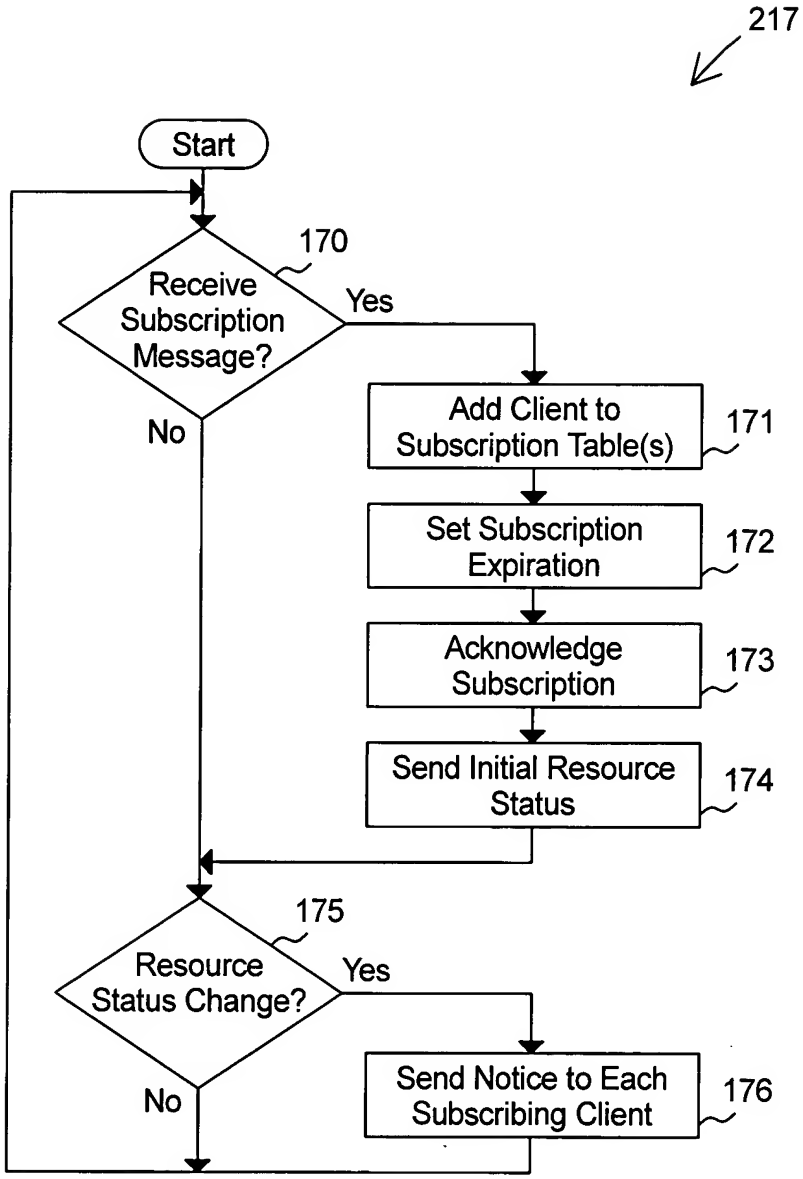
217
Start
170
Receive Subscription Message?
Yes
No
Add Client to Subscription Table(s)
171
Set Subscription Expiration
172
Acknowledge Subscription
173
Send Initial Resource Status
174
175
Resource Status Change?
Yes
No
Send Notice to Each Subscribing Client
176

Figure 22

216

Resource Status Table			
Resource ID 145	Notice Server ID 143	Subscription Expiration 148	Status 177
145a			
145b			
145c			

Figure 23

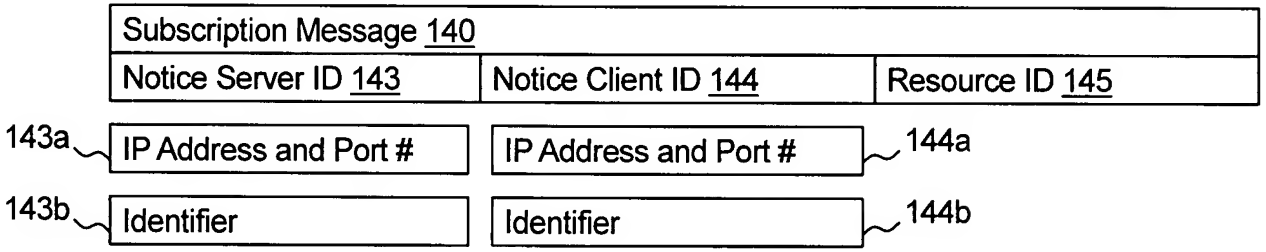

Figure 24a

Subscription Acknowledge Message 141		
Notice Client ID 144	Resource ID 145	Expiration 148

Figure 24b

Notice Message 142		
Notice Client ID 144	Resource ID 145	Resource Status 149

Figure 24c